meeting the recommended guidelines for pneumonia vaccination. The lack of continuous health insurance exceeded 30 percent among those not in compliance with cholesterol, blood pressure, or Pap smear screenings and among those without recent dental care.

The largest disparity in limitation of health care due to cost was found among those with no recent dental visit. This group was much more likely to report not being able to see a doctor because of cost than those with a recent dental visit (Adj. OR=1.94). Similarly, those who were non-compliant with blood pressure checks, cholesterol checks, mammograms, Pap tests, and pneumonia vaccinations were significantly more likely than persons in compliance to experience cost as a barrier to health care.

Very high rates of not having a checkup in the past year were evident for almost all non-compliant groups. About 95 percent of those with no blood pressure check in 2 years, 50 percent of women with no Pap test in 3 years, and nearly 47 percent of those with no cholesterol check in 5 years reported that they did not have a recent medical checkup. When adjusted for demographic differences, the odds ratio for not having a checkup was 9.56 for non-compliance with mammograms, 14.52 for non-compliance with Pap tests, and 53.0 for non-compliance with blood pressure checks.

Discussion

In this study, the strongest demographic predictors of limited health care access were household income and age. Almost 40 percent of survey respondents with total household incomes under \$25,000 and nearly 30 percent adults under age 40 had no health insurance or had interrupted coverage in the past year. Younger adults may opt not to have health insurance or a routine checkup due to relatively good health, as compared to older adults. Adults under age 40 were three times less likely than older adults to report having fair or poor health. However, people in low-income groups simply may not be able to afford the cost of health insurance.

Level of education was an independent predictor of limited health care access. In addition to having more stable

income, people with college or higher education levels may value having continuous health insurance more than people with lower education levels. The observed disparity in access to health care between whites and minorities appears to be due primarily to differences in household income, education, and age. After controlling for these factors, the odds ratios for race were not significant for non-continuous health insurance and limitation of care due to cost. However, whites were significantly more likely than minorities to report that they did not have a checkup in the last year (Adj. OR= 1.46).

Chronic Disease Conditions

In North Carolina, people with chronic health conditions had about the same likelihood of experiencing interrupted or no health insurance in the past year as people without chronic health conditions. However, this could be viewed as a disparity between the groups with and without these conditions. People with chronic conditions have an increased need for medical care. Also people with asthma, diabetes, and arthritis have significantly lower household incomes. This suggests that people with chronic illnesses may be making a bigger sacrifice to have continuous health insurance coverage. Furthermore, the cost of a doctor visit was a significant barrier to health care among persons with arthritis, asthma, and high cholesterol.

Our study results revealed that persons with chronic diseases were much *less likely* than persons with these diseases to report not having an annual routine checkup. This seems reasonable, given the greater need for medical surveillance among the chronically ill population. However, these results may also reflect differences in interpretation of the term "routine checkup" between those who have and do not have chronic health problems. It may be that those with chronic health problems tend to equate a routine checkup with a scheduled disease-management visit, whereas the non-chronically ill may perceive the term more generally, as an overall health checkup.

Finally, the higher routine checkup rates of adults with chronic health conditions may be biased. The groups with chronic health conditions were chosen because they reported being told about their health conditions